AirOn

Operating Instructions

Air-On® Individual room air conditioner AKLKK-900

Table of contents

1   General Information

1.1 Target group

This document is intended for persons that:
- are in immediate contact with the device (users of the climatised room)
- are responsible for the maintenance of the device (user/caretaker/maintenance supervisor)

1.2 Intended use

Your Air-On$^®$ must only be used for the purpose intended by the manufacturer. Any other or use beyond this is termed as not intended use.

Keep these operating instructions in a safe place for future reference.

1.3 EC Declaration of Conformity

You can find the Declaration of Conformity on our homepage at:

www.air-on.ch/konformitaetserklaerung

1.4 Disposal

Packaging

Packaging material must be recycled and disposed of correctly.

De-installation

The device must only be de-installed by a service partner.

Disposal

Device and replacement parts must be disposed of correctly according to applicable national legislations.

The active carbon filter must be packed in a plastic bag and disposed of with the normal rubbish.

2   Safety Instructions

2.1 Explanation and Structure

Safety instructions are intended to avert possible risks wen using the device.

Structure

The safety instructions in this document are structured as follows:
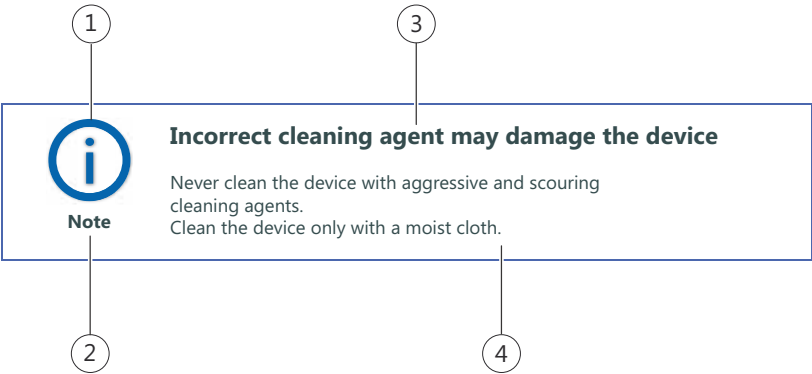
1 Safety signs	**3** Type and source of the danger
2 Signal word	**4** Impacts and measures

Meaning and use

The safety instructions in this document are classified as follows:

Designates a potentially hazardous situation

Not avoided this may lead to minor injuries.
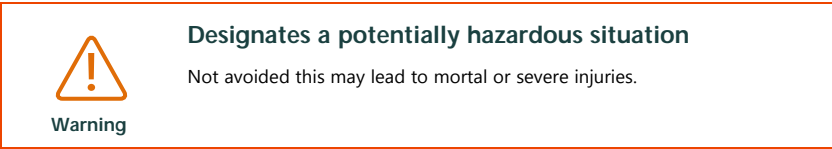
Caution

Designates a potentially harmful situation

If not avoided, the device or something in its vicinity will be damaged.

Note

Additional notes

Support

The "Hint" designates additional information that assist you in using the device.

Hint

2.2 Information on safe use

Warning

Risk of injury from mechanical and electrical components

Inside the device, there are components that are live and that are moved mechanically which can lead to injuries or death when touched.
Never attempt to open, change, disassemble or dismantle the device at locations not intended for that purpose in any other way!

Warning

Risk of explosion

Inflammable or corrosive gases, vapours or dust may ignite.
If inflammable or corrosive gases are determined, the device must be switched off immediately.

Warning

Risk from moisture

Liquids entering may damage the device or cause a short-circuit that, if touched, can lead to severe injuries or even death.
Prevent liquids from entering:

- never put plants on or above the device so that water ingress when watering is avoided.
- never wash the device with too much water or a soaking wet cloth. Use only a moist cloth.

Make sure that no water in air inlets or outlets enters the facade (do not spray the facade, protect against rain water).

Warning

Unauthorised use

This device is not designed to be used by persons (including children) with restricted physical, sensory, or mental capabilities or with lack of experience and/or knowledge unless they are supervised by a person who is responsible for their safety and have received instructions from this supervising person in how the device should be used.

Children

There is a risk of injury when using the device incorrectly. Children should be supervised in order to ensure that they do not play with the device.

Warning

Ventilation blades

Fans are located behind the ventilation blades that rotate at high speed, and electric filters that are operated with high voltage. If not operated correctly, these can lead to injury or electric shock. Never stick objects in the device openings!

Caution

Risk of falling

Injuries may result if the device is misused as a climbing or stepping aid. Never stand on the device and never use the device as a climbing or stepping aid.

Caution

Missing or used active carbon filter results in too high ozone concentrations

An ozone concentration that is too high poses a risk to health.
Never operate the device without active carbon filter, and always replace it in time.

Caution

LED check when opening the doors and covers

If the opening of one of the doors or covers is not detected, there is a risk of injury.
When opening the service doors or covers of the bottom inlet or top outlet respectively, the user must check if the respective LED illuminates on the status display.
If the LEDs do not illuminate, an error is at hand. Then you have to close the doors/covers and contact your service partner (see page 47).

Caution

Example: service doors open

2.3 Installation

(i) Note	**Incorrect installation** Incorrect installation may damage the device. The device must only be installed by a trained fitter according to the national in accordance with the national installation regulations.

⚠ Warning	**Wall outlet** Installing the device under a wall socket incorrectly could lead to risk from the wall socket overheating. The device must not be installed/operated immediately underneath a wall socket.

⚠ Warning	**Bath/shower** An electric shock may result from making contact with live sources that could be lethal or lead to severe injuries. The device must be installed in such a manner that it cannot be touched by the person in the bath/shower.

⚠ Warning	**Defective mains connecting line** An electric shock could be lethal or lead to severe injuries when making contact with a defective mains connection line. If the mains connection line of this device is damaged, it must be replaced by the service partner.

2.4 Commissioning

|	
(i) Note	**Incorrect commissioning** Incorrect commissioning may damage the device. The device must only be commissioned by a trained fitter.

2.5 Operation

> **Damage from accumulation of air**
>
> Damage can be caused to the device if the correct air circulation cannot be guaranteed, e.g., by a thick airtight curtain.
>
> Never cover the device. It is forbidden to place textile materials or other materials and objects on the device, or to block the air inlets at the bottom and on the right side.

The device is intended for mounting on the wall. The following distances must be maintained to ensure for optimum air circulation during operation:
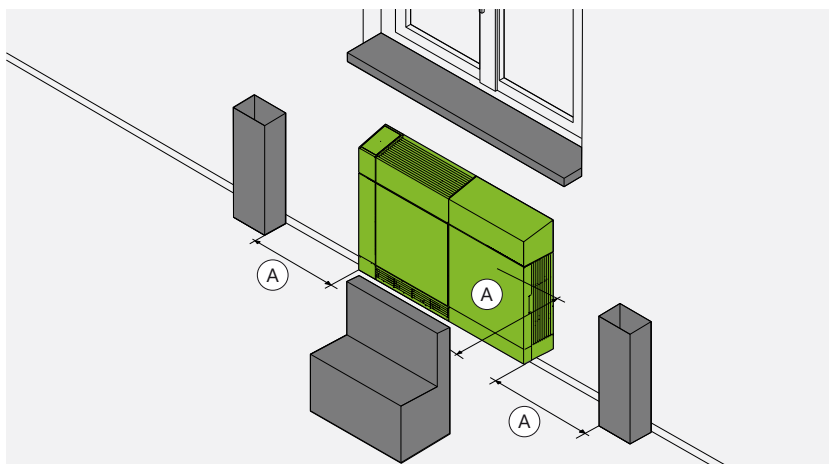
A: Recommended positioning 10 cm from floor. Access from right, left and right must be guaranteed (recommended min. 5 cm)

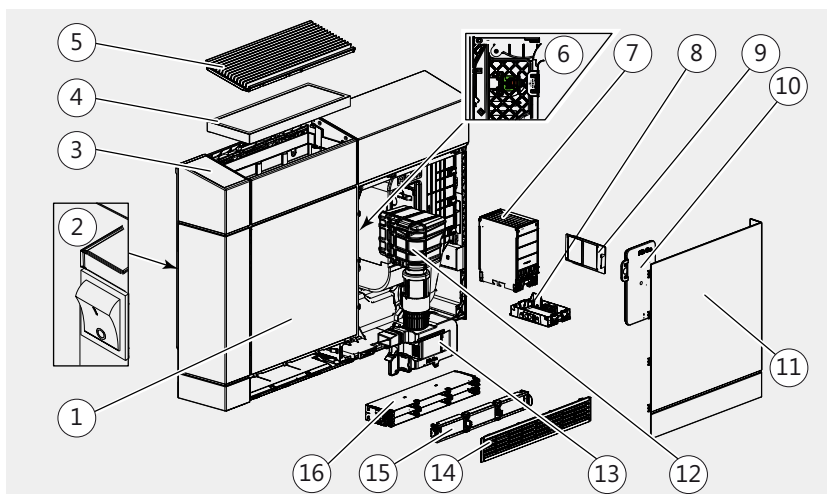You must be able to access the main switch at all times (see page *15* Device overview Position 2).

2.6 Warranty terms and liability exclusion

The warranty terms and liability exclusion for the Air-On® device are subject to the general terms of business of Air-On AG. You can find this on our homepage at:

http://www.air-on.ch/agb

3   Your Air-On®

3.1   Device overview

|			
1	Radiant panel	**9**	Outgoing air coarse filter
2	Main switch	**10**	Cover of the outdoor air electric filter
3	Control panel	**11**	Service doors
4	Active carbon filter	**12**	Water tank (optional)
5	Blade outlet	**13**	Humidification module (optional)
6	Service display	**14**	Secondary air blade inlet
7	Outdoor air electric filter	**15**	Room air coarse filter
8	Outdoor air coarse filter	**16**	Room air electric filter

4 Functions

4.1 Your room air quality

Heating – ventilation – air purification – dehumidification - humidification: everything in one device!

The intelligent control regulates the three central influencing factors in a demand-oriented and energy-saving way for a healthy room climate.

- CO_2 -concentration
- Humidity
- Temperature

Air-On® always keeps these three physical quantities in the optimum desired range, provides an ideal, comfortable climate for humans and effectively filters fine particles, ultrafine, allergens and pollen particles out of the air. This ideal comfortable climate in combination with the relation between temperature and relative humidity, are summarised in a so-called area of comfort that contains all factors for well-being.
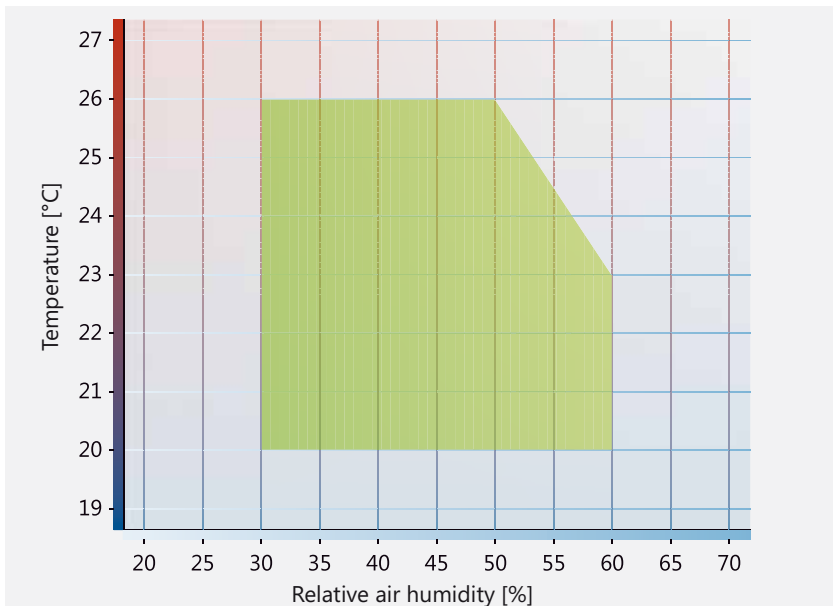
The area of comfort in which the temperature and humidity is perceived as being pleasant.

4.2 Functional principle
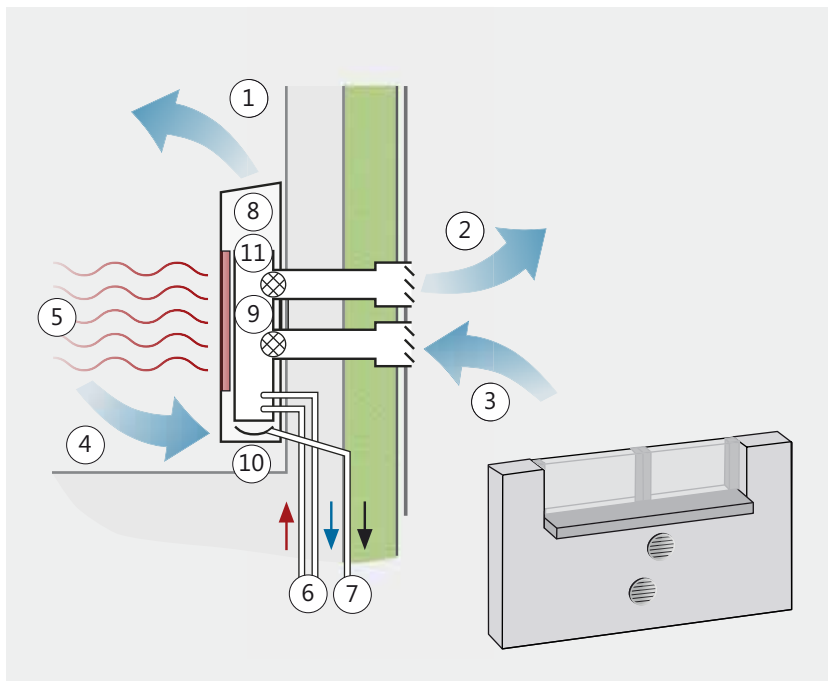
Functional principle as device cross-section

1	Supply air (cleans, conditions the air with outdoor air quantity)	**6**	Heating water supply/return lines
2	Exhaust air	**7**	Condensation
3	Outdoor air	**8**	Sensors (temperature, CO_2, humidity)
4	Secondary air	**9**	Thermoelectric heat pump
5	Radiant heat	**10**	Humidification and dehumidification

4.3 Separate functions

Air-On® is the only device with an integrated silent heating pump for individual room conditioning. These and other superior technologies make each of the individual functions to an excellent module of healthy indoor environment.

heating

Using convection, the Air-On® device brings the room to the desired temperature quickly and efficiently. At the same time, the radiating surface on the front side ensures for a pleasant warmth.

Depending on the heating demands, the integrated thermoelectric heat pump of the Air-On® is switched on automatically.
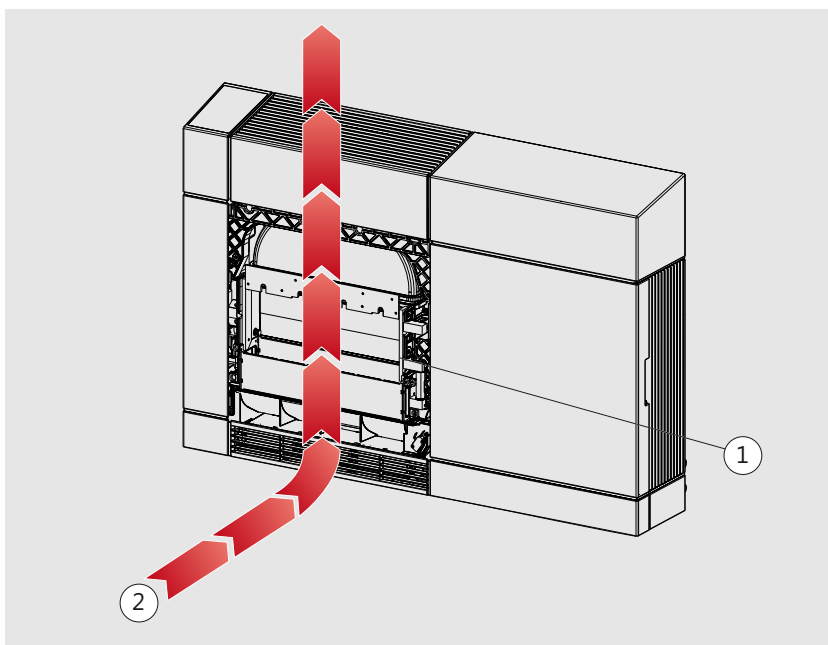

| **1** | Thermoelectric heat pump | **2** | Air flow in heat mode |

Ventilation

The room is supplied with cleaned outdoor air according to demand, thus, CO_2, temperature and humidity controlled. This is pre-heated or pre-cooled by the exhaust air via a heat exchanger.

A possible icing of the heat exchanger by unfavourable temperature conditions indoors and outdoors is prevented effectively by the Air-On$^®$ device.
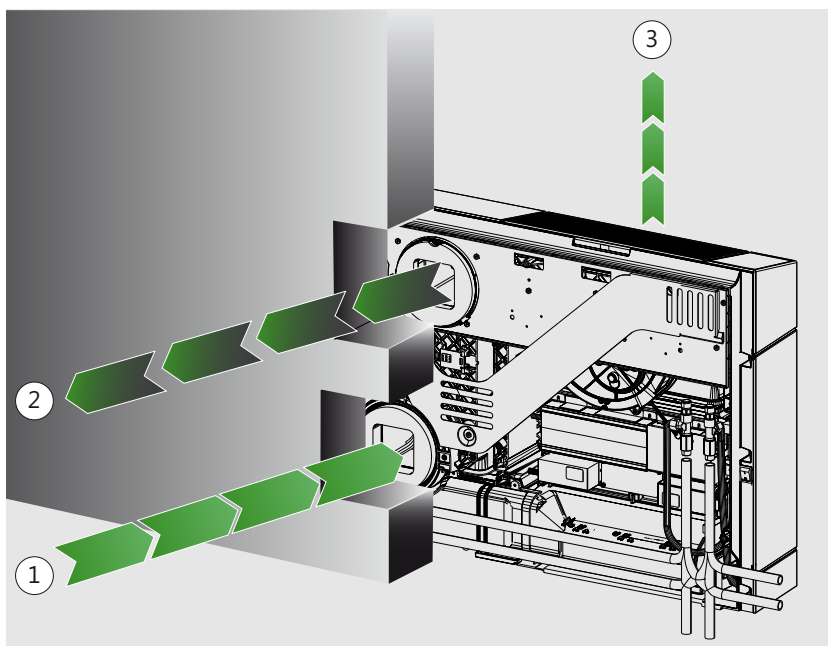
1	Outdoor air	**3**	Cleaned and odour-neutralised supply air
2	Exhaust air		

Cleaning the air

Outdoor air and indoor air are cleaned by the Air-On® device effectively in three filter levels (coarse filter, electrostatic filter and active carbon filter).

In this manner, the room air and the outdoor air supplied are cleaned from fine particles, in particular also ultrafine particles, allergens, pollen and unpleasant odours.

The Air-On® device efficiently reduces ozone to a level that is safe according to the WHO. The active carbon filter does not only bind ozone that is produced by the electrostatic filters in the device and ensures for hygiene in the device. It also reduces ozone that is contained in the outdoor air in high concentrations during the summer months.
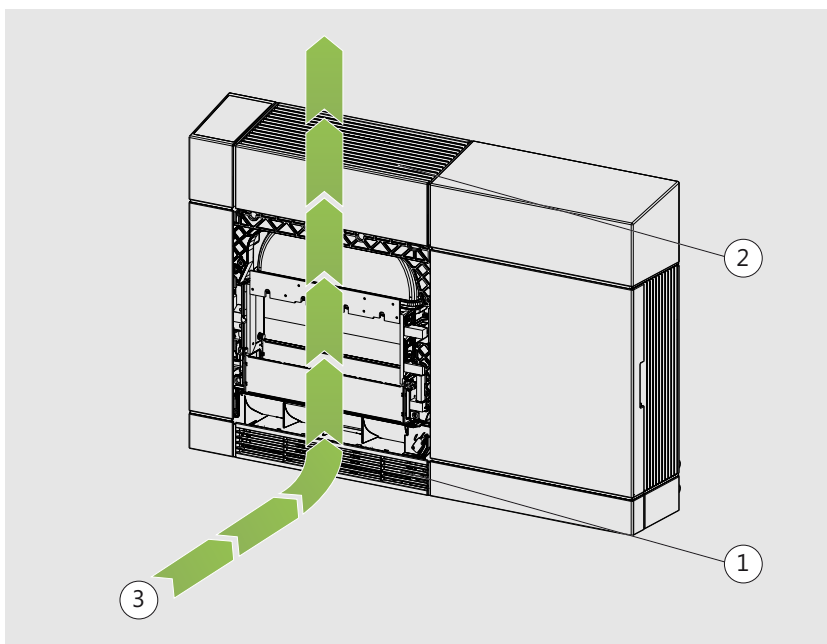

| **1** | Electric filter module | **3** | Air flow in air cleaning mode |
| **2** | Active carbon filter | | |

Dehumidification

The dehumidification takes place in perfect interaction with the gentle cooling. As soon as the outdoor and room air is cooled below the dew point by the decentral thermoelectric heat pump in cooling mode, it looses humidity. This supports the cooling function as the perception of temperature is associated with the humidity.

In heating mode, the room is dried by air supplied from outside.
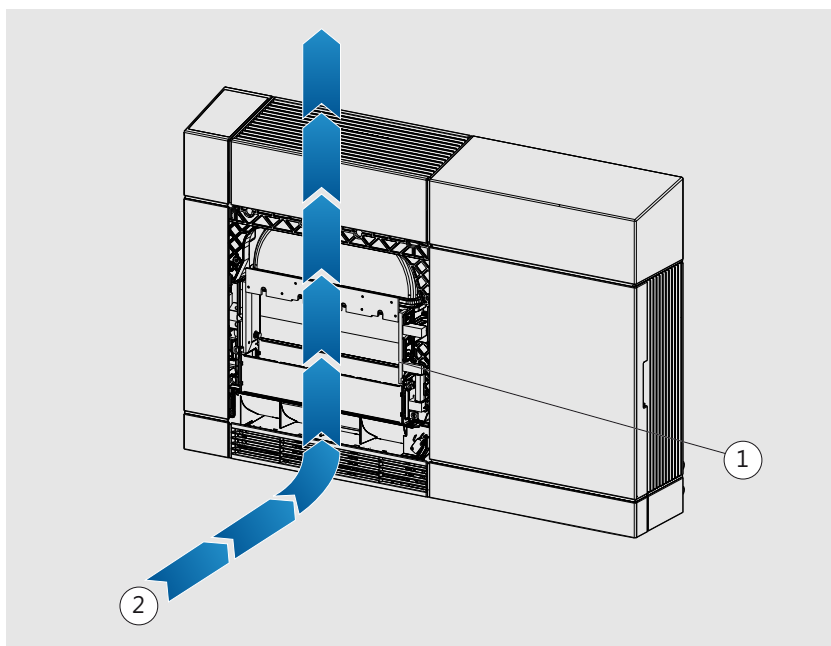

1 Thermoelectric heat pump   **2** Air flow in dehumidification mode

Humidification (optional)

An additional humidification of the room air may make sense for an optimum room climate depending on demand and season. For this purpose, Air-On® devices are available with and without humidification module; this can be retrofitted as an option at any time.

Normal tap water can be used in a convenient manner for the energy saving and hygienic ultrasonic atomisation. In doing so, a demineralisation cartridge ensures that no lime is released in the form of harmful ultrafine particles.
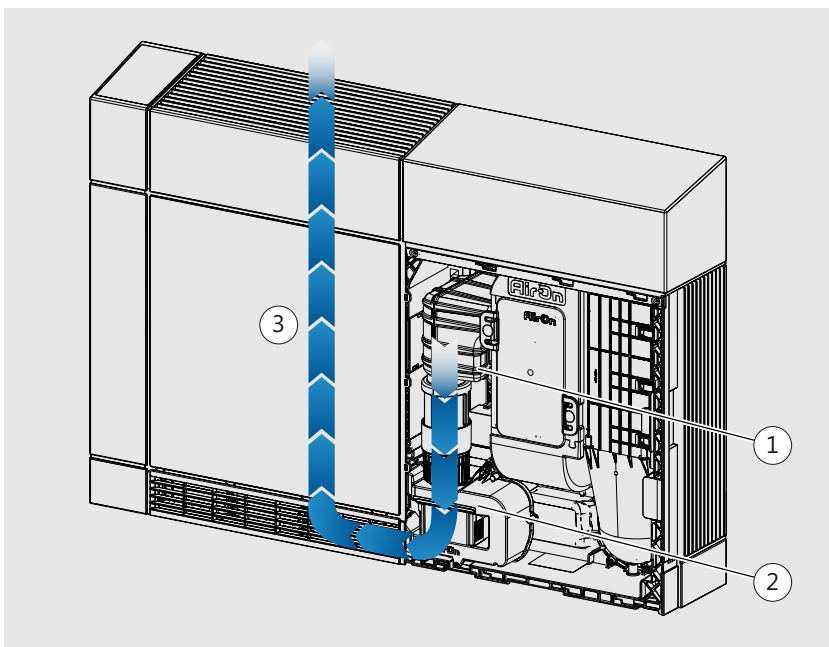
1	Water tank	**3**	Air flow in humidification mode
2	Humidification module		

4.4 Your Air-On® in the course of the year

The device operates in different combinations of the individual functions which are each activated automatically depending on the time of year.
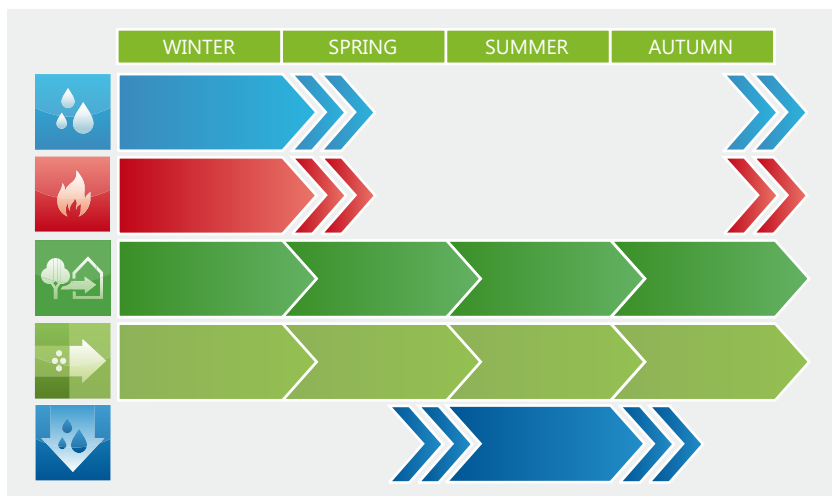

Symbol	Function	Symbol	Function
	Humidification Only active in winter and partially in the transitional period.		**Cleaning the air** Active throughout the year.
	heating Only active in winter and partially in the transitional period.		**Dehumidification** Only active in summer and partially in the transitional period.
	Ventilation Active throughout the year.		**In some cases** Possible in the transitional period but only necessary in some cases.

5 Operation

5.1 Operating concept

Your Air-On® is self-cleaning. The device is provided with information from the environment and by the user (absence, guest, night, cold, warm, etc.) and sets itself automatically. Depending on the operating mode, different influence variables (CO_2 content, temperature, humidity, fan level) are evaluated and the individual functions are controlled by the intelligent Air-On® regulation that a pleasant room climate desired by the user is always created.

5.2 Overview of the operating elements
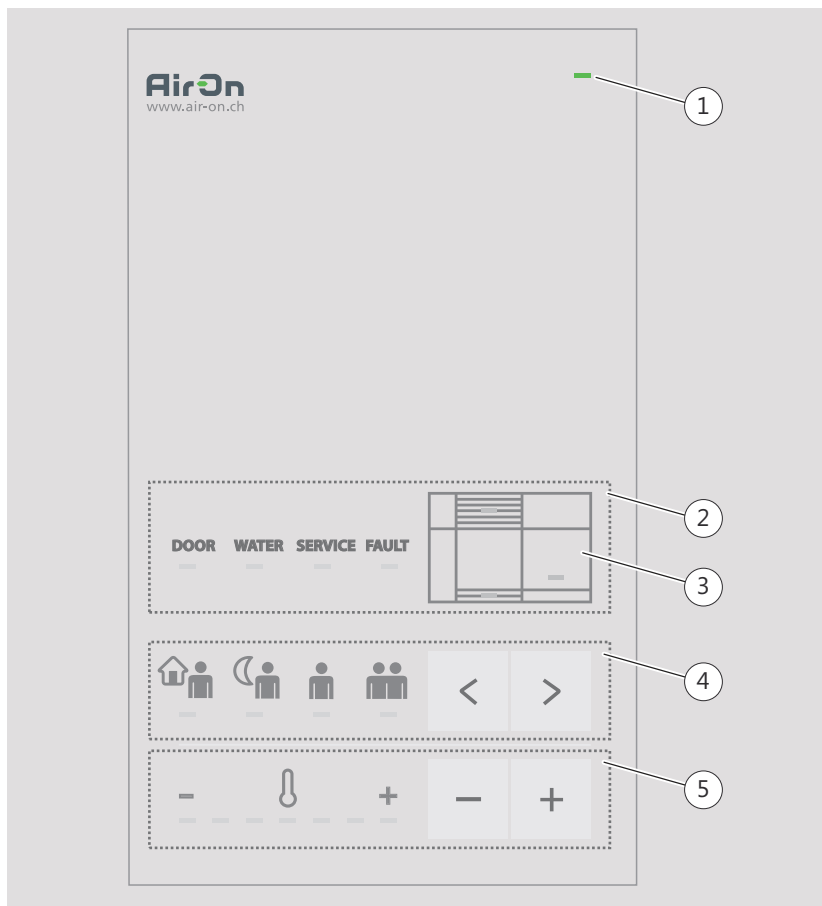
1	Standby indicator	
2	Status displays	
3	Mini view of the device with status localisation	
4	Operation modes control panel	
5	Control panel temperature specification	

5.3 Operating element, Standby

The operating element switches to standby after not being touched for 10 seconds. All LEDs go out and only the standby indicator (1) continues to illuminate.

Exception: when in operating mode Party () as well as if an error or service message illuminates in the status display (2) and an LED illuminates on the miniature view of the device (3), the operating element cannot switch to standby until the message has been acknowledged.

In order to reactivate the operating element, you can tap on a sensor button (temperature or operating mode selection) (4/5).

5.4 Switching the device On/Off

The main switch is positioned on the left side behind the device and should only be operated for maintenance purposes or with possible malfunctions.
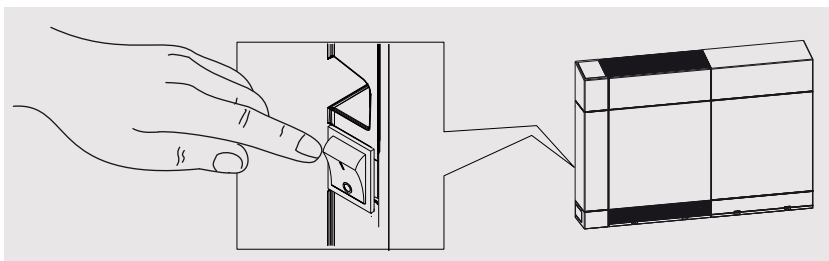
Switch on the device

- In order to switch on the device, move the rocker switch to 1, and to 0 for switching off.

> ### Avoid the formation of mould in the room
> In order to prevent the accumulation of mould during longer periods of absence, we recommend that the Air-On® is never switched off.
>
> **Hint**

> ### Device drying during longer standstill periods
> Residual moisture can lead to the formation of mould.
> If the device is taken out of service for longer periods, it is absolutely necessary to carry out the device drying mode.
>
> **Note**

5.5 Device drying mode

If the device is going to be switched off and taken out of service for longer periods (longer than one week), the device drying mode must be carried out in all cases in order to guarantee hygiene in the device.

In case your device is equipped with the option humidification, first decommission the humidification module before starting the device drying according to chapter 8 (see page *45*).

Start the device drying

The device drying is started when pressing the < and + buttons at the same time.

The correct starting of the device drying is indicated by the 4 symbols flashing at the same time.

The noise of the fan increases at the same time.

In case your device is equipped with the option KNX, take note that the device drying must be started separately on each device. Starting the device drying via KNX for all devices at the same time is not possible.

Device drying completed

The complete device drying takes 3 hours. The completion of the device drying is indicated by the 4 symbols lighting up continuously at the same time.

As soon as the 4 symbols light up, the device automatically switches to the window opening mode. Now it can be switched off manually using the main switch (see page *27*).

The device is dried out hygienically perfectly and can be switched off for longer periods without problem.

5.6 Setting the nominal temperature value

By tapping on the "+/-" buttons, you can regulate your individual room temperature. The LED of the level set illuminates blue.

- Tap on the "+" button to increase the room temperature.
- Tap on the "-" button to reduce the room temperature.
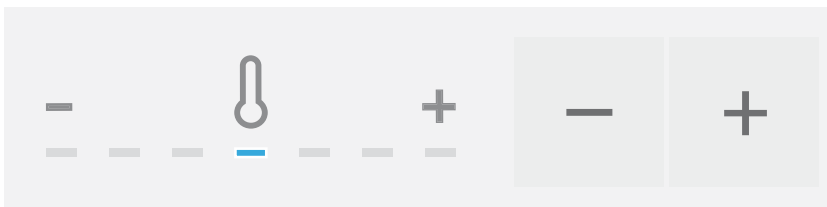
*Control panel temperature specification*

Optimum operation

When changing the temperature, different device-internal factors are adapted. This takes a little time. For this reason, the temperature should only be adjusted in small steps: switch maximum one to two levels higher or lower each time.

Hint

5.7 Operating the modes

Your Air-On® device operates in five different performance levels, the so-called operating mode:

- Absent
- Silent
- Comfort
- Party
- Window opening

In doing so, the device regulates the room climate depending on the season, humidity and temperature.
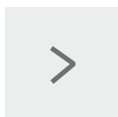
>	When tapping on the arrow buttons, you can change the operating mode step by step from the left to the right
<	or vice-versa.
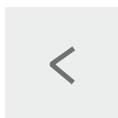
5.8 Comparison of the operation modes

Operating mode «Absent»

This operation of the Air-On$^®$ is optimised for a low energy consumption (power and water) at the cost of a higher noise level.

Ideal for uninhabited premises.

Operating mode «Quite»
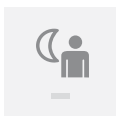
The night mode is optimised for minimum noise emission. In doing so, the Air-On$^®$ still ensures for a good climate for one to two persons.

Ideal for sleeping.

Operating mode «Comfort»
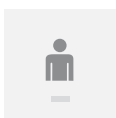
The device automatically reacts to different requirements (temperature indoors/outdoors, humidity indoors/outdoors, CO_2 concentration in the room air) and ensures for a good room climate. Odour development and energy efficiency are treated in a balanced manner.

Ideal for operating during the day or with brief absence.

Operating mode «Party»
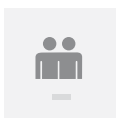
The fan as well as the filter run constantly at high performance thus enabling a good and healthy room climate despite high loading. Compared with normal operation, the noise level is increased.

Ideal if there are many persons, odour-intensive beverages, etc.

Operating mode: «Window opening»

This mode switches the heating, ventilation and air cleaning function off temporarily. The room climate is intended exclusively for the open window. The device only have self-protection against frost risk.

Ideal when opening the window or when the device should be absolutely quiet. You can switch on the operating mode "Window opening" on by pressing the left arrow button again in the operating mode "Absence".

Displays "Absent" and "Quite" both illuminate.

5.9 Status displays
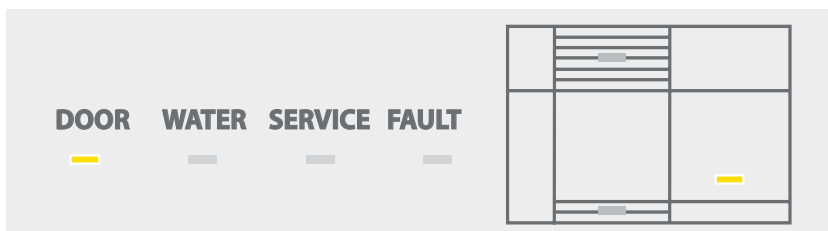
Status display example: "Service doors open"

Three levels of messages are shown in the status display:

**1** Messages for the user (open doors, water tank empty, etc.).

2 Service messages for maintaining the device ().

3 Error messages for troubleshooting for the service partner ().

User messages

Status	Miniature view	Cause	Action
DOOR		Service doors are missing or are not mounted correctly.	Mount the service doors correctly.
DOOR		Blade for the outlet is missing or not mounted correctly.	Mount the blade correctly.
DOOR		Blade for the room air inlet is missing or not mounted correctly.	Mount the blade correctly.
WATER		Humidification module water reservoir is empty.	Fill up the water reservoir in the humidification module.

6 Care and Cleaning

6.1 Clean the device surfaces with a moist cloth
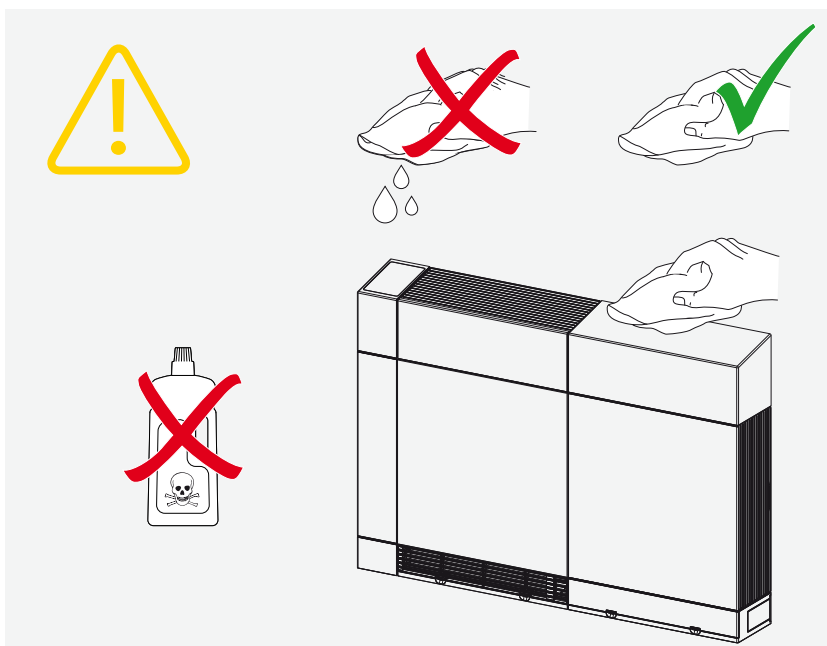
Clean the device surfaces

- Wipe over the surface of the device with a moist cloth.

> **ⓘ Note**
>
> **Incorrect cleaning agent may damage the surfaces of the device**
>
> Never clean the device with aggressive and scouring cleaning agents. Clean the device only with a moist cloth.

7 Maintenance

| ⚠️ Caution	**Maintenance by the user**
	Manipulation to the device may lead to injuries. The user may only carry out the maintenance tasks listed in this chapter. In event of incorrect handling, also by third parties, will lead to all guarantee and warranty claims being cancelled.

7.1 Maintenance schedule

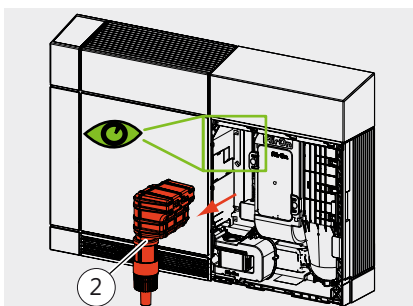| Status display	Miniature view	Activity	Frequency
SERVICE ▬		Clean the room air electric filter module. *Automatic acknowledgement of the service notification after cleaning.*	every 6 months or earlier in event of high contamination
SERVICE ▬		Clean the outdoor air electric filter module. *Automatic acknowledgement of the service notification after cleaning.*	every 6 months or earlier in event of high contamination
SERVICE ▬		Order a filter set. Replace active carbon filter and both coarse filters. *The service notification goes out automatically after replacement.*	1 x per year
ERROR ▬		Maintenance necessary: Read off the error code from the service display . Contact your service partner .	-

7.2 Read code

Service and error messages that the user cannot rectify themselves are designated with a code. The code for the service partner is read as follows.
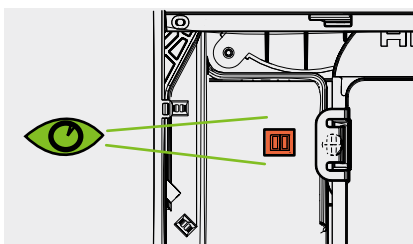
Description

1   Remove service doors (1).
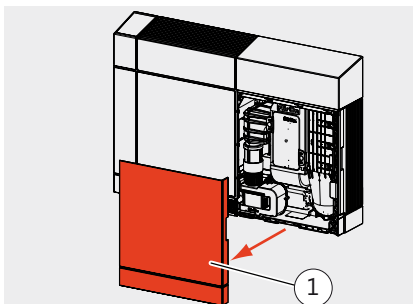
2   Remove the water tank (2) (only if your device is equipped with this option).

3   Read code.

7.3 Error codes

Status display	Miniature view	Activity	Display code
ERROR ▬		Maintenance necessary: Read off the error code from the service display. Contact your service partner (see page 47).	

7.4 Cleaning the filter

Room air electric filter

Room air electric filter, removal

1 Using handle shell (2), push the service doors (1) to the right, hang out and remove.
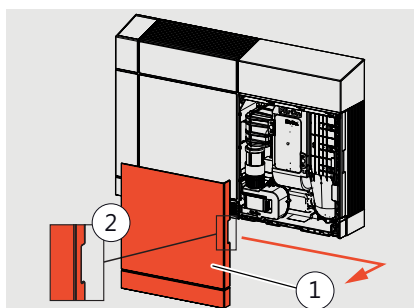
2 Push the blades (3) to the right and remove.

3 Pull out the room air electric filter module (4) parallel to the front on both tabs (5).

4 Clean the electric filter in a non-trade dishwasher with the filter attachment pointing upwards.

Clean the electric filter module in the dishwasher

Place the electric filter with coarse filter in the dishwasher pointing wards to ensure that no contamination can accumulate in the filter. Do not wash any sensitive dishes together with the electric filter module.
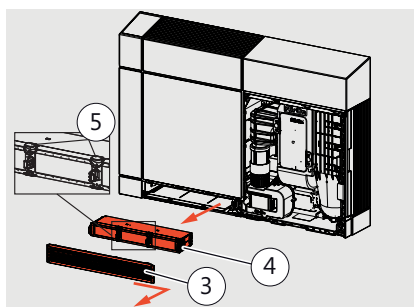
Hint

Clean the electric filter module in the sink

As an alternative, the filter can be cleaned in the sink. Take care that when the filter is cleaned in the sink, it is *not* covered in soap and/or scrubbed, but that it is only rinsed in lukewarm water under the tap.
Then the filter must be dried in the air or in a *cold* flow of air (e.g., hair drier).

Hint

Error due to moisture

Residual wetness in the electric filter module can lead to faults in the device. The electric filter module may only be reinstalled in the device in a dry state. Residual moisture may still be at hand, in particular, in the struts of the plastic parts as well as in the coarse filter net. The drying can, if required, be sped up by using an absorbent lint-free cloth without applying mechanical pressure (external dabbing).

Note

Outgoing air coarse filter

Outgoing air coarse filter, removal

1 Using handle shell (2), push the service doors (1) to the right, hang out and remove.
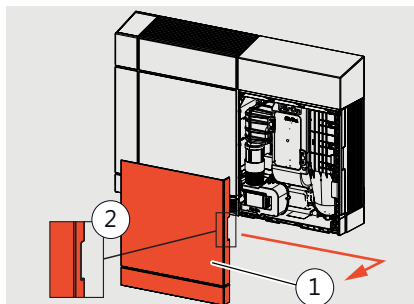
2 Pull the outgoing air coarse filter (3) to the front.

3 Clean the filter in a non-commercial dishwasher or rinse under a tap with lukewarm water and then dry well.
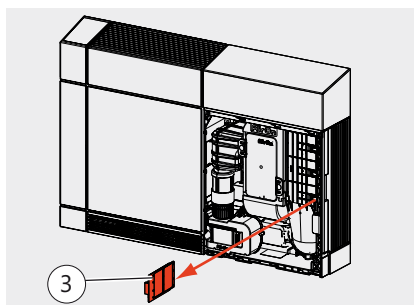
Outdoor air electric filter module

Outdoor air electric filter module, removal

1   Using handle shell (2), push the service doors (1) to the right, hang out and remove.
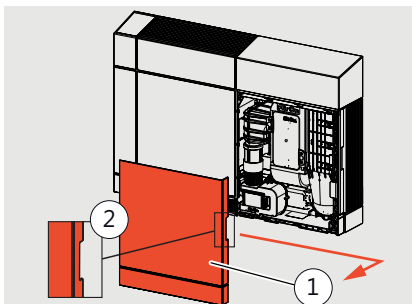
2   Pull the cover of the outdoor air electric filter (3) to the front.

3   Pull the outdoor air electric filter (4) to the front using the handle shell (5).

4   Clean the electric filter in a non-trade dishwasher with the filter attachment pointing upwards

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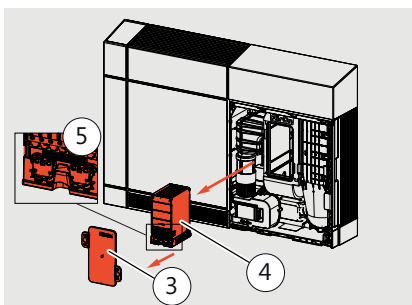
Clean the electric filter module in the dishwasher

Hint

Place the electric filter with coarse filter in the dishwasher pointing wards to ensure that no contamination can accumulate in the filter.

Hint

Clean the electric filter module in the sink

As an alternative, the filter can be cleaned in the sink. Take care that when the filter is cleaned in the sink, it is **not** covered in soap and/or scrubbed, but that it is only rinsed in lukewarm water under the tap.

Then the filter must be dried in the air or in a **cold** flow of air (e.g., hair drier).

Note

Error due to moisture

Residual wetness in the electric filter module can lead to faults in the device. The electric filter module may only be reinstalled in the device in a dry state. Residual moisture may still be at hand, in particular, in the struts of the plastic parts as well as in the coarse filter net. The drying can, if required, be sped up by using an absorbent lint-free cloth without applying mechanical pressure (external dabbing).

7.5 Filter, replace

The Air-On$^®$ device outputs a message as soon as it is necessary to change the active carbon filter and both electric filter attachments (coarse filter).

For replacing the active carbon filter and electric filter attachment, a complete filter set can be ordered from Air-On AG or your service partner (). A detailed instruction as to how the filter is replaced is included in the filter set.

The active carbon filter and the filter attachments must be replaced at least once a year. The device outputs a respective message.
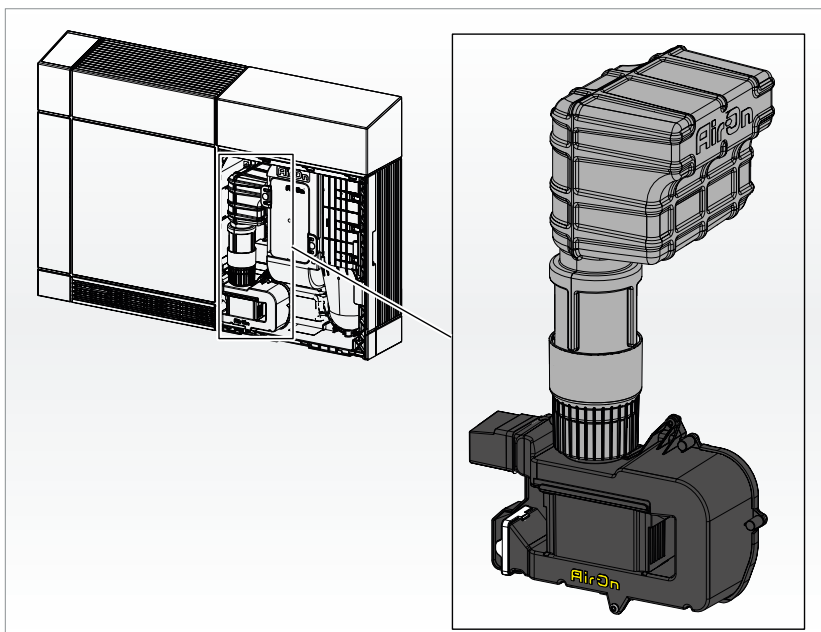
Note

Spare filter set, ordering

The spare filter set can be ordered from your service partner.

The instructions for changing the filter is enclosed in the FS-AKLKK-900 filter set.

8 Options

8.1 Humidification module

The Air-On® device can be equipped or retrofitted with a humidification module. It can be ordered from your service partner () and also be installed by them. A more detailed installation and operating instruction is enclosed in the packaging.

ⓘ **Note**	**Ordering the humidification module** The humidification module can be ordered from your service partner. The installation instruction is enclosed with the module.

8.2   KNX-TP interface card

An Air-On® device can be connected to an KNX network via a KNX interface and thus, be integrated into a building management system. This allows the Air-On® device to be operated in the different function ranges from KNX.

KNX can be used to control the heating, lighting, roller blinds, ventilation and security technologies across buildings and demand-oriented.

A separate installation manual is available on out homepage (www.air-on.ch/knx) for the installation of the KNX interface card as well as for commissioning and programming.
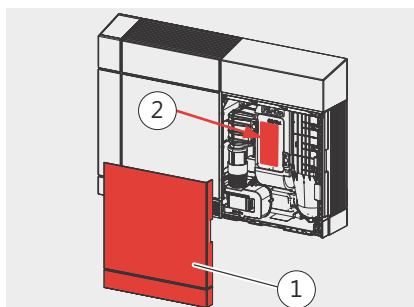
9 Troubleshooting

9.1 Customer service

You have to contact the service partner to assist with troubleshooting. You can find the contact data behind the service doors on the cover of the outdoor air electric filter.
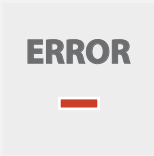
Contact address in the device

1 Remove service doors (1).

2 The contact address (2) is located on the electric filter cover.

9.2 Faults according to symptoms (without error message)

Symptom	Possible cause	Measures
Hissing noise	• Soiled electric filter causes discharging • The electric filter was not dried completely by the dishwasher • Climatic conditions may also lead to discharge	• Clean the electric filter module in the dishwasher and re-insert (see page 39). • Remove the electric filter module, dry completely and reinsert. • If there is a hissing noise after carrying out the measures described, establish contact with the service partner.
Gurgling/rustling noise in the water circuit	• Air in the water circuit	• Vent the water circuit in the device (see page 50).
Standby indicator does not illuminate, no function	• Main switch not switched on • No mains voltage	• Switch the main switch on (standby indicator is green). • Check the power supply.
Standby indicator illuminates, the control panel is dark	• Display in energy saving mode	• Press any button to activate the display.
Standby indicator illuminates, no function of the device	• One or more covers are open (status display "Door" is illuminated)	• Close all doors and covers.

9.3 Error code

| Status display	Miniature view	Activity	Display code
ERROR		Error: Read off the error code from the service display (see page 38). Contact your service partner (see page 47).	

Meaning of the error codes

Error code on the service display	Possible cause	Measures
20	• Lack of water in the external heating system.	• Rectify the lack of water in the central heating (consult the service partner / heating engineer).
21	• Service has not been carried out on the outdoor air electric filter.	• Clean the electric filter immediately (see page 42).
22	• Service has not been carried out on the room air electric filter.	• Clean the electric filter immediately (see page 39).
25...99	• Device error.	• Contact your service partner (see page 47).

9.4   Vent the water circuit in the device

Vent the water circuit

1   Remove service doors (1).
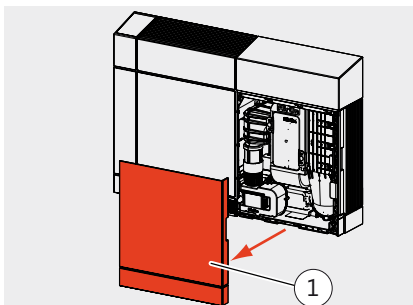
2   Remove the water tank (2) (only if your device is equipped with this option).

•   The venting screw is located at the top left on the device.
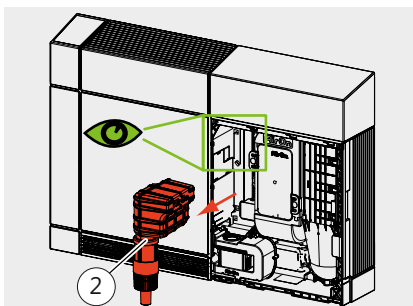
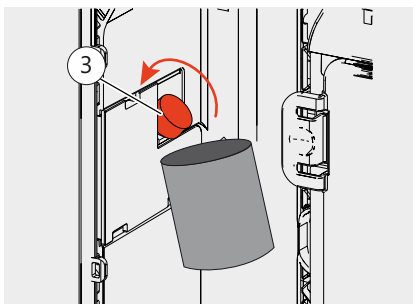**3**   Turn the venting screw (3) open by a half a turn counter-clockwise.

4   Collect the water running out with a container or cloth.

5   Close the venting screw (3) again.

6   Re-insert the water tank and mount the service doors.

10 Technical Data

10.1 General data

Requirements	
Installation requirements	
Positioning	Wall mounting by means of Air-On® suspension device (MS-AKLKK-900), recommended on outside wall. Recommended positioning 10 cm from floor. Access from right, left and right must be guaranteed (recommended min. 5 cm)
Environmental conditions	
Range of application	Central European climate zone. Height limit 3,000 meters. Indoors, recommend low-energy buildings
Water supply	
Max. operation pressure in the water circuit	6 bar (PN6)
Differential pressure Controlled differential pressure (Δpw)	Max. 2 bar Min. 0.2 bar
Flow rate	Constant min. 104 l/h per device. A hydraulic balance must be planned and implemented with the quantified values.
Water quality	Demineralised water according to current standard: SWKI BT 102-01, VDI 2035 (specific requirements for Aluminium)
Supply temperature range	17... 50° C
Piping water supply	Existing, conventional dual pipe system can normally be used
Ventilation	
Pressure drop	Pressure loss in outside and exhaust air ducts (customer side) each max. 15 Pa (at 60 m^3/h) flow velocity < 1.5 m/s (at ø 125 mm air ducts).
Heat recovery	The device is equipped an integrated outgoing air heat recovery function.
Heating	
Central heating system	Air-On® can be perfectly integrated into all heating systems which are able to provide, either directly (e.g. reversible heating pump) or aided by an appropriate self-contained system (e.g. gas-fired system, oil boiler, pellet heating), a supply temperature of 17 ... 50 °C.
Connection to facade	
Ventilation	Tapping drill hole Ø 160 mm, air passage Ø approx. 125 mm, air duct and associated insulation to be provided by the customer. On request, ventilation flaps provided by the customer can be controlled by the optionally available Air-On KNX interface.

Requirements

Connected rating (peak)

1 Wall plate

2 Customer's condensation pipe siphons (e.g. HT pipe/Geberit) at Ø = min. 30 mm and min. 20° gradients (12°) to outside

3 Sealing/insulation

4 Flexible hose

5 Shrink hose

6 Metal pipe outer Ø = 10 mm

Tapping drill hole condensation pipe Ø 50 mm, 20 % gradient (12°) to outside (max. 0.5 l/h). Condensation passage (pipe) Ø min. 30 mm, condensate duct and insulation must be provided by customer.
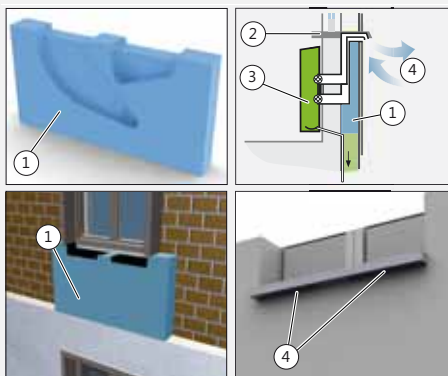Condensation pipe to SWKI VA-104/VDI 6022.
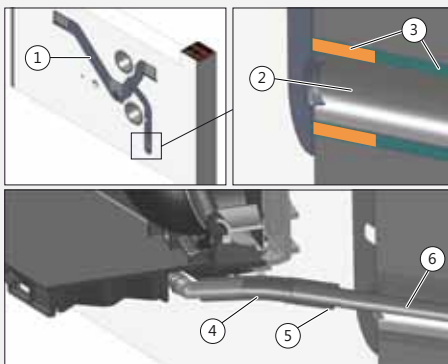
Insulation

Insulation module

1 Insulation module (individually adaptable)

2 Window sill

3 Air-On® device

4 Outdoor and exhaust air duct below window sill

A special module is available for simplifying the outdoor and exhaust air ducts of the Air-On® device. The air ducts for optimum flow conduction - with the lowest possible flow resistance - are integrated into this module. The module can be used as part of the building insulation below the window on the outer facade, and supplied as a complete block to the desired thickness and height. The module is adapted to the specific height and width on site (detailed information from www.air-on.ch/Installation).

Technical Data

Interfaces

Mains connection	230 VAC/50 Hz protection class 1
Electrical	Fusing (FI LS 13 A). Up to three devices can be looped.
Connected rating (peak)	320 W, average power consumption < 25 W
Building automation	KNX-TP interface card with BST14 connection (optional)

Dimensions, weight, colour

Installation dimensions W x H x D	1,000 × 678 × 205 mm
Weight	38 kg
Colour	RAL 9016 (traffic white)

Water supply

Flow control	The device is supplied with a balanced, pressure-independent and factory-set control valve.
Piping water supply	Connection preparation on Air-On® with flex connections: 2x IG Rp 3/8" according to ISO 228/1 Supply and return lines ventilated with shut-off cock ON/OFF (e.g. "Trigress" 3/8" ball cock and "Nussbaum" 3/8" vent valve).
Hydraulic pressure drop	200 mbar (design value)

Ventilation

	Home configuration	Office configuration
Supply air volume		
Absent mode:	0 ... 75 m^3/h	0 ... 75 m^3/h
Silent mode:	0 ... 15 m^3/h	0 ... 30 m^3/h
Comfort mode:	0 ... 30 m^3/h	0 ... 50 m^3/h
Party mode:	30 ... 60 m^3/h	50 ... 75 m^3/h
Window opening mode:	0 m^3/h	0 m^3/h

CO_2 control	Limit value 1350 ppm/conforms to EN 13779 or SIA 382/1 RAL3
Maximum heat recovery Exhaust/outdoor air	Heat exchanger efficiency 70 % (measured in dry environment), 80 % (with condensation)
Sound pressure level	Silent mode (night mode) < 20 dB(A) (Measurement conditions: Standard room, reverberation time 0.5 s, distance 1 m) 44 dB (conforms to noise protection class 4 for windows)

Filters

Electrostatic filter for outdoor air	Deposition rate for particles 0.3 ... 10 µm > 95 % (filter class F9) Deposition rate for particles 10 ... 500 µm > 85 % (filter class E10)
Electrostatic filter secondary air	Deposition rate for particles 0.3 ... 10 µm > 80 % (filter class F7)
Active carbon filter for supply air	Reduced odours

Humidity

|	
Room air dehumidification	Max. 300 ml/h
Room air humidification	Max. 200 ml/h
Water reservoir	Removable tank, approx. 2 litres

Subject to technical modifications.

10.2 Type plate

Air-On ® Individual room air conditioner
Model: AKLKK-900

Air-On AG
Gewerbestr. 11
CH-6330 Cham
www.air-on.ch

Mains connection	230V~ 50 Hz	Nominal pressure (6 bar)	600 kPa
Connecting cable	320 W	Differential pressure	12 - 200 kPa
Cooling power nom./max.	190/380 W	Supply temperature cooling	17 - 25 °C
Heating power nom./max.	500/870 W	Supply temperature heating	22 - 50 °C
Supply air volume	0 - 75 m³/h	Flow rate	104 l/h
Outdoor air/exhaust air	0 - 60 m³/h	Weight	38 kg

CE RoHS COMPLIANT 2002/96/EC

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S/N A2013001420

Type plate sample

Type plate in the device

1 Remove service doors (1).

2 The type plate (2) is located at the bottom on the rear wall.
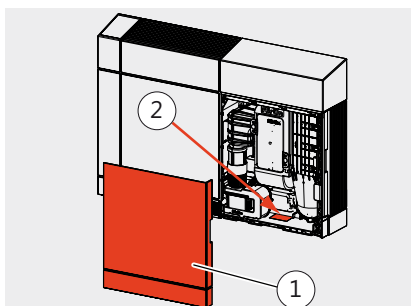
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